March 23, 2018

President’s Address for March Graduation Ceremony of Academic Year 2017

Yuji Oie, President, Kyushu Institute of Technology

Today brings all of us at Kyushu Institute of Technology great joy as we welcome everyone to the graduation ceremony for the year 2017. Let me begin by congratulating each of our graduates on turning this auspicious corner in your lives. Let me also offer my heartfelt congratulations to the proud parents, guardians and other family members whose emotional and material support has enabled these graduating students to reach this day.

As we celebrate your graduation from Kyutech, I would like to take the opportunity today to reflect on the future that awaits you and on how to approach the making of that future.

The book Megachange: The World in 2050, edited by the British business magazine The Economist (Japanese translation by Bunshun Bunko Ltd.), writes that no one can entirely predict how information and emerging technologies will be used in the future, but that we do know they will serve as the foundation of technological innovations that will inevitably occur. Indeed, sensor networks, artificial intelligence, and oceans of data will be used in a variety of ways that their creators would scarcely understand, not unlike how electrification was driven by the desire to illuminate light bulbs but ultimately led to a system that supplies electricity to our computers and myriad other devices. According to the editors at The Economist, the lesson we must learn from the past is to take a very humble approach to the future because technology rarely advances in the ways people imagine. While the future cannot be predicted, the technological seeds from which the future will emerge are already with us. Our job is to imagine humbly the future potential of these current and emerging technologies.

In a follow-up book titled Megatech: Technology in 2050 (Japanese translation by Bungeishunju Ltd.), the editors at The Economist focus on the technologies that will reshape the world by 2050. Technology, however, has an impact on a broad array of fields, and the range of influential technologies will continue to grow. The renowned science fiction author William Gibson famously wrote that "the future is already here – it's just not evenly distributed." Citing Gibson, the editors write that technology may seem to appear from nowhere, but that is never the case. If we look in the right places, we can today see the tomorrow's technologies. Calling them "edge cases," the editors make the argument that it is important to look for examples of technology that have spread only within a particular group or country before they spread more widely.

As a simple example of this, consider Japan's "Galapagos" phone market and the spread of mobile money in Kenya at the start of the 21st century. In the case of the Japanese mobile phone market, the editors explain how phones with cameras and color displays were already normal in Japan by 2001. These phones could show maps with directions and even allowed users to download apps for digital books and games, and journalists and analysts would trek to Japan just to see them. As for the widespread use of digital money, the editors note that Kenya has long been the world leader. Users there are able to send money easily and instantly between devices, just like exchanging text messages. In Nairobi, they write that it is easy to pay for a taxi using your mobile phone, whereas in New York it was years before anything like that was possible. As the editors explain, these countries found themselves in special circumstances, one in which they could work creatively without worrying about issues like compatibility with systems in other countries, the other in which a lack of banking infrastructure gave innovators a blank slate from which to work. In either case these technologies were the product of innovations produced under special circumstances. And you can be sure that somewhere, someone, at this very moment, is planting the seeds for a new tomorrow, although it is not always the case that the people who most appreciate the value of these innovations are the ones who first created them. There are many ways for us to participate in the making of the future by humbly recognizing that things like this are happening somewhere right now and appreciating the seeds that are being planted, be it by growing them, admiring their fruits, or just sharing word about them with others.

Now I would like to tell you something about how to approach the making of this future using the example of the BIRDS Satellite Project underway at our university. Were you aware that we received the 2017 GEDC Airbus Diversity Award for this project last year? In 2017, there were 45 submissions from 18 countries with only three finalists selected to present their projects at the annual conference of the Global Engineering Deans Council (GDEC), a global engineering education organization. To our great joy, the BIRDS Satellite Project was the project chosen for the award. This award is sponsored by global aircraft manufacturer Airbus and is now supported by UNESCO (United Nations Educational, Scientific and Cultural Organization) as an award that seeks successful examples of projects that further diversity in engineering education. BIRDS Satellite Project developed five miniaturized CubeSat satellites that have been launched into space. They were developed by Kyutech students from the five countries of Ghana, Nigeria, Mongolia, Bangladesh, and Japan. Truly, it was tremendous achievement, so I want to again congratulate and thank both the students and faculty who worked so hard on the project. But I also want to call your attention to something very interesting that was mentioned in the award, namely, that diversity is becoming an important standard measure of business success, with 69% of corporate executives identifying diversity and unity as important concerns in 2017, up from 59% in 2014. As this makes clear, the ability to amass and utilize diverse knowledge is becoming ever more important in our efforts to create the future, and the number of people who recognize this is growing, too.

http://www.airbusjapan.com/single-jp/detail/-6f76c42171/
http://space.airbus.com/newsroom/press-releases/en/2017/10/gecd-airbus-diversity-award-2017.html

Others have commented in various places on the importance of diversity. In a translated book titled *Globalization and Human Security* (published by Chikuma Gakugei Bunko), Nobel Prize in Economics winner Amartya Kumar Sen has written that world progress over several thousand years has been shaped by global interactions that have promoted greater trade, travel, philosophy, knowledge, arts and culture.

Looking ahead to the technologies you will shape, your impact will be felt as those same technologies help to lay the foundation for society's various activities. As you discover and absorb knowledge in all its diversity, I sincerely hope you keep personal and organizational diversity in mind as well, as you humbly seek to imagine from within our world today a future that is bright, a future that you choose to make a reality.

In closing, I hope that the many great relationships you have built at Kyutech will serve you well and I wish you great future success as you turn this auspicious corner in your lives. Once again, congratulations!